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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/275,273	03/23/1999	FRANK P. HART	42390.P5368	9527

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EXAMINER

MYERS, PAUL R

ART UNIT PAPER NUMBER

2181

DATE MAILED: 04/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 09/275,273	Applicant(s) HART ET AL.	
	Examiner Paul R. Myers	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biamonte et al PN 4,766,364 in view of Burstein et al PN 6,268,716.

In regards to claims 1, 11 and 15: Biamonte et al teaches a circuit comprising: a primary voltage regulator (Master voltage regulator) coupled to an electrical load (load) and to a power supply (high voltage input) to provide a first amount of power, the primary voltage regulator (master) to detect power supplied to the electrical load and to control one or more additional voltage regulators (slave voltage regulators); and a secondary voltage regulator (one of the slave voltage regulators) coupled to the electrical load, to the power supply, and to the first voltage regulator (via the control signal from the master and the local error signals), the secondary voltage regulator to provide a second amount of power, the secondary voltage regulator generating a signal (the local error signal) to indicate when power is supplied by the secondary voltage regulator Biamonte et al does not teach sending the signal to the master control or the

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signal being status such as whether the regulator is enabled. Burstein et al teaches returning status information including how much current the regulator can supply. It would have been obvious to a person of ordinary skill in the art to return the local status information (such as the local error signal and/or current capabilities) to the master controlling regulator because this would have provided greater control and accuracy in current regulation. Burstein et al does not expressly teach the status information including whether the regulator is enabled. Official notice is taken that whether a device is enabled is an important bit of status information. It would have been obvious to include whether the device is enabled because this would have provided greater control and accuracy in current regulation.

In regards to claim 2: Biamonte et al teaches the secondary voltage regulator including circuitry (the steering circuitry within the slaves see abstract) to control one or more additional voltage regulators (the master voltage regulator in the event of an error in the master).

In regards to claims 3, 13 and 17: Biamonte et al teaches a third voltage regulator (one of the other slave voltage regulators See figure 3) coupled to the power supply, to the electrical load, and to the secondary voltage regulator (via the control signal coupling the master and all the slave voltage regulators) to supply a third amount of power.

In regards to claim 4: Biamonte et al teaches a third voltage regulator (one of the other slave voltage regulators See figure 3) coupled to the power supply, to the electrical load, and to the primary voltage regulator (via the control signal coupling the master and all the slave voltage regulators) to supply a third amount of power.

In regards to claim 5: Biamonte et al teaches the redundant voltage regulators as described above. Biamonte et al does not teach the load being in a processing system and system

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board. Official notice is taken that computers with processors exist that use power supplies are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the system of Biamonte et al in a processing system because this would have provided redundant power to a processing system.

In regards to claim 6: Biamonte et al teaches a control signal indicating that the second power regulator is supplying power (the local error signal).

In regards to claim 7: Biamonte et al teaches a tertiary power regulator. Biamonte et al does not teach the third power regulator being in a docking station. Official notice is taken that docking stations with their own power supplies are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a docking station in the computer system in which Biamonte et al is used.

In regards to claims 10, 12, 14 and 18: Biamonte teaches activating voltage regulators via a command but does not teach the command being PWM. Official notice is taken that PWM commands are very well known in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use PWM commands because these are a simple command structure.

4. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biamonte et al PN 4,766,364 in view of Burstein et al PN 6,268,716 as applied to claim 1 above and further in view of Tracy PN 6,191,943.

In regards to claim 8: Biamonte et al does not teach thermal heat dissipation for the docked third voltage regulator. Tracy teaches active heat dissipation for the docked notebook. It

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would have been obvious to add heat dissipation because this would have protected the notebook from overheating.

In regards to claim 9: Biamonte et al teaches indicating when the third voltage regulator is supplying power.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 703 305 9656. The examiner can normally be reached on Mon-Thur 6:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoleil can be reached on 703 305 9713. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 9051 for regular communications and 703 308 9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 3900.



PRM  
April 26, 2002

**PAUL R. MYERS  
PRIMARY EXAMINER**